CATEGORICAL EXCLUSION CHECKLIST

Project: Developing Control Techniques and Generating Biological and Ecological Data that are Relevant for the Control of Waxy Mannagrass (*Glyceria Declinata*) Invasions in Vernal Pools

Date: August 6, 2009; rev. August 28, 2009

Nature of Action: Provide $131,230 from the Central Valley Project Conservation Program to John Gerlach to develop waxy mannagrass control techniques and biological and ecological information that will enable the managers of vernal pool preserves and vernal pool conservation banks to significantly lessen the impacts of waxy mannagrass on sensitive status plant and animal species and the vernal pool ecosystems upon which they depend.

This project will be conducted at three locations in Sacramento County: Sacramento Valley Prairie Vernal Pool Preserve Kassis Ranch (T07N R06E S11), Kiefer Landfill Vernal Pool Preserve (Omochumnes land grant), and the CDFG Phoenix Field Ecological Reserve (T9N R7E S34) .

Exclusion Category: B (2): Research activities, such as nondestructive data collection and analysis, monitoring, modeling, laboratory testing, calibration, and testing of instruments or procedures and non-manipulative field studies.

Evaluation of Criteria for Categorical Exclusion

1.	This action or group of actions will have a significant effect on the quality of the human environment.	No ✓ Uncertain__ Yes__
2.	This action or group of actions will involve unresolved conflicts concerning alternative uses of available resources.	No ✓ Uncertain__ Yes__
3.	This action will have significant adverse effects on public health or safety.	No ✓ Uncertain__ Yes__
4.	This action will have an adverse effect on unique geological features such as wetlands, wild or scenic	No ✓ Uncertain__ Yes__

	rivers, rivers placed on the nationwide river inventory, refuges, floodplains, or prime or unique farmlands.	
5.	This action will have highly controversial effects.	No ✓ Uncertain__ Yes__
6.	This action will have highly uncertain environmental effects or involve unique or unknown environmental risk.	No ✓ Uncertain__ Yes__
7.	This action will establish a precedent for future actions.	No ✓ Uncertain__ Yes__
8.	This action is related to other actions with individually insignificant but cumulative significant environmental effects.	No ✓ Uncertain__ Yes__
9.	This action will adversely affect properties listed or eligible for listing in the National Register of Historical Places.	No ✓ Uncertain__ Yes__
10.	This action will adversely affect a species listed or proposed to be listed as endangered or threatened.	No ✓ Uncertain__ Yes__ On June 29, 2009, Reclamation initiated informal consultation with the Service on the activities for projects in the CVPCP and the HRP for Fiscal Year 2009. The Service concurred on September 28, 2009 that the projects, including this study, are not likely to adversely affect listed species.
11.	This action threatens to violate Federal, state, local, executive or Secretarial orders, or tribal law or requirements imposed for protection of the environment.	No ✓ Uncertain__ Yes__
12.	This action will affect Indian Trust Assets.	No ✓ Uncertain__ Yes__

13.	This action will have a disproportionately high and adverse human health or environmental effects on low income or minority populations.	No ✓ Uncertain ___ Yes___
14.	This action will limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites.	No ✓ Uncertain___ Yes___
15.	This action will contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species.	No ✓ Uncertain___ Yes___

NEPA Action: Categorical Exclusion ✓ EA ___ EIS ___

Environmental commitments, explanation, and/or remarks:

Natural, restored, and created vernal pools in California and Oregon, whether grazed or not, are rapidly being invaded by the non-native waxy mannagrass. In many invaded vernal pools waxy mannagrass has become the dominant plant species displacing all native species, sensitive status and non-sensitive status alike, and has reportedly altered the water chemistry of the invaded vernal pools to such an extent that sensitive status crustaceans are almost nonexistent and mosquito and midge larvae dominate in the surveyed vernal pools. The typical invasion pattern at a site is for some vernal pools and swales to be highly invaded while others support only scattered individuals of waxy mannagrass. Nothing is known about the biological or ecological characteristics of either waxy mannagrass or of the invaded vernal pools and swales that would explain this pattern. However, a closely related species, water mannagrass (*Glyceria fluitans*), has been shown to have extremely high nitrogen uptake rates of cattle excrement additions to seasonal streams so either natural or cattle induced differences in water or soil fertility might explain the pattern. No control or removal techniques have been tested on waxy mannagrass except for laborious hand-pulling in a few vernal pools with very high conservation value.

The experiments and studies in this project are targeted specifically to address control and management questions:

1. A novel seed-flushing and seedling flaming technique to control waxy mannagrass in highly invaded vernal pools and swales where no sensitive species have been detected, and a second much less intensive technique for use in less invaded vernal pools where sensitive status species are present. If successful, these techniques will help to eliminate the primary seed sources on a site that are likely driving the invasion, the highly invaded vernal pools, and provide an alternative method for use in vernal pools with a high conservation value.

2. A set of experiments and studies that focus directly on biological characteristics that are likely to promote invasiveness and which may identify characteristics of waxy mannagrass that could be exploited for management efforts.

3. A set of studies to quantify important environmental characteristics of the invaded vernal pools which may help to answer the question of why some vernal pools are much more susceptible to invasion than others.

Preparer's Name and Title: Douglas Kleinsmith
Douglas Kleinsmith
Environmental Specialist

Date: 10-2-09

Regional Archeologist concurrence with Item 9: See attachment

ITA Designee concurrence with Item 12: See attachment

Concurrence:

Rosemary Stofari Date: 10/6/09
Program Manager, Central Valley Project
Conservation Program

Approved:

Anastasia T. Leigh Date: 10/7/09
Regional Environmental Officer

From: Nickels, Adam M
Sent: Tuesday, August 11, 2009 11:44 AM
To: Kleinsmith, Douglas H
Cc: Stefani, Rosemary A; Thomson, John G; Barnes, Amy J; Bruce, Brandee E; Connolly, Jonathan D; Leigh, Anastasia T; Overly, Stephen A
Subject: **CEC Control of Waxy Mannagrass**

Project No. 09-MPRO-301

Doug:

The proposed undertaking to provide funding from the Central Valley Project Conservation Program to John Gerlach to develop waxy mannagrass control techniques has no potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1).

The proposed undertaking involves a study that will help to improve vernal pools. The experiments and studies in this project are targeted specifically to address control and management questions:

1. A novel seed-flushing and seedling flaming technique to control waxy mannagrass in highly invaded vernal pools and swales and a second much less intensive technique for use in less invaded vernal pools where sensitive status species are present. If successful, these techniques will help to eliminate the primary seed sources on a site that are likely driving the invasion, the highly invaded vernal pools, and provide an alternative method for use in vernal pools with a high conservation value.

2. A set of experiments and studies that focus directly on biological characteristics that are likely to promote invasiveness and which may identify characteristics of waxy mannagrass that could be exploited for management efforts.

3. A set of studies to quantify important environmental characteristics of the invaded vernal pools which may help to answer the question of why some vernal pools are much more susceptible to invasion than others.

I concur with line 9 of the CEC for the Developing Control Techniques and Generating Biological and Ecological Data that are Relevant for the Control of Waxy Mannagrass (*Glyceria Declinata*) Invasions in Vernal Pools Dated August 6, 2009.

Locations: This project will be conducted at three locations in Sacramento County: Sacramento Valley Prairie Vernal Pool Preserve Kassis Ranch (T07N R06E S11), Kiefer Landfill Vernal Pool Preserve (Omochumnes land grant), and the CDFG Phoenix Field Ecological Reserve (T9N R7E S34) .

Exclusion: B(2)

This concludes the Section 106 process

Adam M. Nickels, M.S.
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From: Rivera, Patricia L
Sent: Monday, August 17, 2009 2:00 PM
To: Kleinsmith, Douglas H
Subject: RE: ITA Requests for first 3 CVPCP projects for 2009

Doug,

I reviewed the proposed action to provide $131,230 from the Central Valley Project Conservation Program to John Gerlach to develop waxy mannagrass control techniques and biological and ecological information that will enable the managers of vernal pool preserves and vernal pool conservation banks to significantly lessen the impacts of waxy mannagrass on sensitive status plant and animal species and the vernal pool ecosystems upon which they depend.

The proposed action does not affect Indian Trust Assets. The nearest ITA is Auburn Rancheria approximately 25 miles N of the project location.

Patricia